

REMARKS

Applicant has considered the outstanding official action. Applicant submits that the claims are directed to patentable subject matter and are in condition for allowance as set forth below.

The sole rejection is of claims 4-6 under 35 U.S.C. §103(a) over U.S. Patent No. 5,934,930 (Camps) in view of U.S. Patent No. 6,683,789 (Sheynis).

Initially, it is noted that claim 5 has been placed in independent form, incorporating all the limitations of base claim 4. Claim 6 has been made solely dependent on claim 4. New claim 7 is the same as prior claim 6/5.

The claimed cable connector is equipped with a closing lever having multiple functions which include facilitating closing of components and connecting cables to hold together in closed position these components, as well as providing these functions by low closing forces.

Applicant submits that the combination of Camps and Sheynis does not teach or suggest a cable connector having a closing lever as claimed which facilitates both connecting operations between conductors of two elements and

locking the elements in a connected position using low force.

As set forth at page 2, lines 6-10, of applicant's application, prior art devices required the application of relatively high force to carry out closing operations with a degree of certainty. As set forth at page 2, second paragraph, the invention eliminates this disadvantage and provides means to close the cable connector in a simple and cost-effective manner.

More particularly, the claimed cable connector includes a housing made up of at least two components, a first component and a second component which are movable in relation to each other to come into contact with each other about an axis of rotation for electrically conducting connection. The connector also includes a closing lever coupled at a distance from the axis of rotation with the first component. The closing lever includes a closing claw which is engagable with a stationary cam on the second component in such a way that the at least first component and second component move in a direction of closing contact to contact each other for reciprocal closing when the lever is actuated and to press cutting tips into conductors, when present in the connector, of a flat cable (in the second component) thereby connecting the flat cable and a round

cable (in the first component) upon actuation of the closing lever. Thus, the closing lever, which provides for this reciprocal closing, due to its structure does not require a high degree of force and yet provides the desired action with a degree of certainty.

Claims 5-7, which more specifically claim the structure of the closing lever, further distinguish the claimed cable connector from the applied art. As set forth at page 4, lines 4-16, in order that the forces required for moving the housing components completely together may be applied, the closing lever is coupled to one housing component and configured to be U-shaped. Each side of the U-shape is coupled to a side of the the housing component to which the closing lever is coupled. Each side of the U-shape is provided with a closing claw which acts in conjunction with a cam on opposite sides of a second housing component so that when the lever is thrown, the two housing components are pressed and retained against each other and cutting tips of the cable connector pressed into the conductors of a cable without special application of force.

Neither of the applied references of Camp and Sheynis teach the structure of the claimed closing lever of

claim 4, in particular as more specifically claimed in claims 5-7.

As acknowledged by the Examiner at page 3 of the outstanding action, Camps does not disclose a closing lever coupled at a distance from an axis of rotation with a first component including a closing claw which is engagable with a stationary cam on a second component in such a way as to move the first and second components in a direction of closing to contact each other for reciprocal closing when the closing lever is actuated while pressing cutting tips into conductors of a flat cable thereby connecting a flat cable and round cable together upon activation of the closing lever. The Examiner relies on Sheynis for teaching the structure lacking in Camps and use of this structure in the device of Camps to provide applicant's claimed device.

Sheynis, however, does not teach or suggest applicant's claimed closing lever, much less provide such in a device as described in Camps for obtaining applicant's cable connector as claimed. The lever described in Sheynis is simply a latching mechanism for locking a removable connector in its position when it is in contact with contact pads of a printed circuit. Since the device of Sheynis is only a locking device, it does not serve to lower closing or

inserting forces. Sheynis does not teach a closing lever structured to move connectors into a closing direction and to press cutting tips into two different conductors so as to connect the conductors as well as to close in a locking manner the components of the connector. Thus, Sheynis is deficient in its teaching. As such, it would not have been obvious to one skilled in the art to replace the closing mechanism of Camps with the closing lever of Sheynis to facilitate connection operations of the first connector element with the second connector element to lock the connector in a connected position and to press the cutting tips into the conductors of the cable to connect two cables together and thereby carry out the connection with low insertion force. Further, in view of the lack of teaching as to pressing cutting tips together so as to enter and connect two separate conductors, no suggestion can be provided to modify the latching mechanism of Sheynis to provide applicant's cable connector including a closing lever as claimed.

As set forth above, Camps is acknowledged to not teach or suggest (1) a closing lever coupled at a distance from the axis of rotation with the first component, (2) a closing claw engagable with a stationary cam on the second

component in such a way that the at least first component and second component move in a direction of closing to contact each other for reciprocal closing when the closing lever is actuated and (3) to press the cutting tips into the conductors of the flat cable thereby connecting the flat cable and the round cable together upon actuation of the closing lever as claimed.

Rather, Camps teaches two interfitting halves 6 and 7 with an intermediate plate 8 therebetween containing points 32, 33 and 34 which pierce wires 12, 13 and 14 when the interfitting halves 6 and 7 (with plate 8 therebetween) are fit together. A slideways 25 (Figures 9 and 10) is provided with clipping tabs 23 and cavities 24 to guide fitting of the halves and to hold the halves together once interfit.

Applicant submits that a closing lever as claimed which moves components of the connector together to press cutting tips into conductors to connect the conductors and also ultimately lock the components of the connector together is not taught or suggested by Camps in view of Sheynis. Camps teaches separate elements to connect cables and to lock the device. Sheynis teaches a pure latching mechanism. Thus, neither Camps nor Sheynis provide any

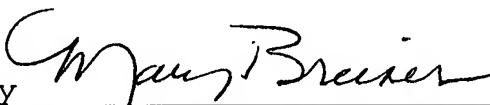
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teaching or suggestion to provide a cable connector with a closing lever which both connects two conductors and locks the connector. Neither Camps nor Sheynis recognize the problem addressed by applicant and, thus, no suggestion is set forth to provide a device with such functions with a degree of certainty at low force application. Therefore, it is respectfully submitted that the applied references do not render the cable connector as claimed obvious within the meaning of 35 U.S.C. §103. Withdrawal of the §103 rejection is respectfully requested.

Reconsideration and allowance of the claims is respectfully urged.

Respectfully submitted,

MAURICE HAMOIGNON

By 

Mary J. Breiner, Attorney
Registration No. 33,161
BREINER & BREINER, L.L.C.
P.O. Box 19290
Alexandria, Virginia 22320-0290

Telephone: (703) 684-6885